

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2002-SW-07-AD; Amendment 39-12794; AD 2002-13-06]

RIN 2120-AA64

Airworthiness Directives; Eurocopter Deutschland GmbH (ECD) Model BO-105A, BO-105C, BO-105 C-2, BO-105 CB-2, BO-105 CB-4, BO-105S, BO-105 CS-2, BO-105 CBS-2, BO-105 CBS-4, and BO-105LS A-1 Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for comments.

SUMMARY: This amendment adopts a new airworthiness directive (AD) for Eurocopter Deutschland GmbH (ECD) (Eurocopter) Model BO-105A, BO-105C, BO-105 C-2, BO-105 CB-2, BO-105 CB-4, BO-105S, BO-105 CS-2, BO-105 CBS-2, BO-105 CBS-4, and BO-105LS A-1 helicopters. This action requires creating a component log card or equivalent record and determining the calendar age, number of flights, and flight hours time-in-service (TIS) on two part-numbered tension-torsion (T-T) straps; inspecting and replacing certain T-T straps, as necessary; and modifying certain main rotor heads if alternate T-T straps are installed. This action also establishes an additional life limit for these two part-numbered T-T straps. This amendment is prompted by an accident in which a main rotor blade separated from a Eurocopter Model MBB-BK 117 helicopter due to fatigue failure of a T-T strap. The same part-numbered T-T strap is used on Eurocopter Model BO-105 helicopters. That accident indicated a need to establish an additional life limit for certain part-numbered T-T straps. The actions specified in this AD are intended to prevent fatigue failure of a T-T strap, loss of a main rotor blade, and subsequent loss of control of the helicopter.

DATES: Effective July 15, 2002.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of July 15, 2002.

Comments for inclusion in the Rules Docket must be received on or before August 27, 2002.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Office of the Regional Counsel, Southwest Region, Attention: Rules Docket No. 2002-SW-07-AD, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. You may also send comments electronically to the Rules Docket at the following address: 9-asw-adcomments@faa.gov.

The service information referenced in this AD may be obtained from American Eurocopter Corporation, 2701 Forum Drive, Grand Prairie, Texas 75053-4005, telephone (972) 641-3460, fax (972) 641-3527. This information may be examined at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Richard Monschke, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Rotorcraft Standards Staff, Fort Worth, Texas 76193-0110, telephone (817) 222-5116, fax (817) 222-5961.

SUPPLEMENTARY INFORMATION: The Luftfahrt-Bundesamt (LBA), which is the airworthiness authority for the Federal Republic of Germany, notified the FAA that an unsafe condition may exist on Eurocopter Model BO-105A, BO-105C, BO-105 C-2, BO-105 CB-2, BO-105 CB-4, BO-105S, BO-105 CS-2, BO-105 CBS-2, BO-105 CBS-4, and BO-105LS A-1 helicopters. The LBA advises that two part-numbered T-T straps are no longer available from the manufacturer as spare parts, and a retrofit modification of the main rotor head is necessary to enable installation of alternative T-T straps.

Eurocopter has issued Eurocopter Alert Service Bulletin No. ASB-BO 105-10-115, dated June 25, 2001, which specifies determining the total length of installation time accumulated on the T-T straps and retrofitting the main rotor head, if applicable. Eurocopter has also issued Eurocopter Service Bulletin No. SB-BO 105-10-100, Revision 1, dated July 16, 2001, which specifies replacing affected main rotor head parts with product-improved new parts. The LBA classified these service bulletins as mandatory and issued AD 2001-281, effective October 18, 2001, to ensure the continued airworthiness of these helicopters in the Federal Republic of Germany.

These helicopter models are manufactured in the Federal Republic of Germany and are type certificated for operation in the United States under the provisions of 14 CFR 21.29 and the applicable bilateral agreement. Pursuant to the applicable bilateral agreement, the LBA has kept the FAA informed of the situation described above. The FAA has examined the findings of the LBA, reviewed all available information, and determined that AD action is necessary for products of these type designs that are certificated for operation in the United States.

This unsafe condition is likely to exist or develop on other helicopters of the same type designs registered in the United States. Therefore, this AD is being issued to prevent fatigue failure of a T-T strap, loss of a main rotor blade, and subsequent loss of control of the helicopter. This AD requires:

- Creating a component log card or equivalent record and determining the calendar age, number of flights, and flight hours TIS on each T-T strap;
- Replacing certain part-numbered T-T straps based on new life limits; and
- Modifying certain main rotor heads if alternate T-T straps are to be installed.

This AD also establishes additional life limits for two part-numbered T-T straps. The main rotor head modifications must be accomplished in accordance with the service bulletin described previously. The short compliance time involved is required because the previously described critical unsafe condition can adversely affect the structural integrity and controllability of the helicopter. Therefore, determining the amount of accumulated time of each T-T strap, replacing certain part-numbered T-T straps based on the new life limit, and modifying certain main rotor heads are required before further flight, and this AD must be issued immediately.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

The FAA estimates that 20 helicopters will be affected by this AD, that it will take approximately 24 work hours to accomplish the T-T strap replacements and main rotor head modification, and that the average labor rate is \$60 per work hour. Required parts will cost approximately \$8,260 for the T-T straps and \$15,650 for parts to modify the main rotor head for each helicopter. Based on these figures, the total cost impact of the AD on U.S. operators is estimated to be \$507,000.

Comments Invited

Although this action is in the form of a final rule that involves requirements affecting flight safety and, thus, was not preceded by notice and an opportunity for public comment, comments are invited on this rule. Interested persons are invited to comment on this rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified under the caption ADDRESSES. All communications received on or before the closing date for comments will be considered, and this rule may be amended in light of the comments received. Factual information that supports the commenter's ideas and suggestions is extremely helpful in evaluating the effectiveness of the AD action and determining whether additional rulemaking action would be needed.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the rule that might suggest a need to modify the rule. All comments submitted will be available in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this AD will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their mailed comments submitted in response to this rule must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 2002-SW-07-AD." The postcard will be date stamped and returned to the commenter.

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and that it is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

Sec. 39.13 [Amended]

2. Section 39.13 is amended by adding a new airworthiness directive to read as follows:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "www.airweb.faa.gov/rgl"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2002-13-06 Eurocopter Deutschland GMBH (ECD): Amendment 39-12794. Docket No. 2002-SW-07-AD.

Applicability: Model BO-105A, BO-105C, BO-105 C-2, BO-105 CB-2, BO-105 CB-4, BO-105S, BO-105 CS-2, BO-105 CBS-2, BO-105 CBS-4, and BO-105LS A-1 helicopters, with main rotor head assembly, part number (P/N) 105-14101, and tension-torsion (T-T) straps, P/N 2602559 or P/N 2606576, installed, certificated in any category.

Note 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent fatigue failure of a T-T strap, loss of a main rotor blade, and subsequent loss of control of the helicopter, accomplish the following:

(a) Before further flight:

(1) Create a component log card or equivalent record for each T-T strap.

(2) Review the history of each affected helicopter and each T-T strap. For each T-T strap, determine the number of months since initial installation on any helicopter (age), the number of flights, and the number of flight hours time-in-service (TIS). Enter the age, the number of flights, and the number of flight hours TIS for each T-T strap on the component log card or equivalent record.

(i) If the number of flights is unknown, multiply the number of hours TIS by 5 and use this result as the number of flights.

(ii) If a T-T strap has been previously used at any time on Model BO-105LS A-3 "SUPER LIFTER", BO-105 CB-5, BO-105 CBS-5, BO-105 DBS-5, or any MBB-BK 117 series helicopter, multiply the number of flights accumulated on those other models by a factor of 1.6 and then add that result to the number of flights accumulated on the helicopters affected by this AD.

(3) Remove any T-T strap from service if the total hours TIS or number of flights and age cannot be determined.

(b) Before further flight, remove from service and replace with an airworthy T-T strap any T-T strap that has been in service 120 months since initial installation on any helicopter, accumulated 15,600 flights (a flight is a takeoff and a landing), or has accumulated 2,400 hours TIS on any helicopter.

(c) This AD revises the Airworthiness Limitations Section of the maintenance manual by establishing a life limit for the T-T strap, P/N 2602559 and P/N 2606576, of 120 months or 15,600 flights, or 2,400 hours TIS, whichever occurs first.

Note 2: T-T straps, P/N 2602559 and P/N 2606576, are no longer in production. T-T straps, P/N 2604067 or P/N J17322-1, may be used as alternate replacements if necessary.

(d) Before T-T straps, P/N 2604067 or P/N J17322-1, are installed, modify any main rotor head P/N 105-14101 configuration to a main rotor head P/N 105-141081 configuration in accordance with paragraph 2, Accomplishment Instructions, and Figure 1 of Eurocopter Service Bulletin No. SB-BO 105-10-100, Revision 1, dated July 16, 2001.

Note 3: AD 2001-17-08 (65 FR 52010, August 28, 2000) established the life limits for T-T straps, P/N 2604067 and P/N J17322-1.

(e) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Regulations Group, Rotorcraft Directorate. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Regulations Group.

Note 4: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Regulations Group.

(f) Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the helicopter to a location where the requirements of this AD can be accomplished.

(g) The main rotor head modification shall be done in accordance with paragraph 2 of the Accomplishment Instructions and Figure 1 of Eurocopter Service Bulletin No. SB-BO 105-10-100, Revision 1, dated July 16, 2001. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR 51. Copies may be obtained from American Eurocopter Corporation, 2701 Forum Drive, Grand Prairie, Texas 75053-4005, telephone (972) 641-3460, fax (972) 641-3527. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(h) This amendment becomes effective on July 15, 2002.

Note 5: The subject of this AD is addressed in Luftfahrt-Bundesamt (Federal Republic of Germany) AD 2001-281, effective October 18, 2001.

Issued in Fort Worth, Texas, on June 18, 2002.
Eric Bries,
Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.
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